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SPECIAL RECTIFIERS

By

V. G. Ulitin

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UNEDITED ROUGH DRAFT TRANSLATION

SPECIAL RECTIFIERS

By: V. G. Ulitin

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Informatsii, No. 3, pp. 23-24, 1962.

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SPECIAL RECTIFIERS

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The Dnepropetrovsk mining-automation plant has begun the production of the VSK-300*, universal welding rectifier, the VS-600 welding rectifier, and the VS-2M rectifier-regulator.

The VS-600 welding rectifier is designed for welding in a medium of protective gases and under flux. The rectifier power is supplied by a 380 volt, 50 cycle, three-phase line. The input power is about 30 kw.

The primary winding of the transformer is tapped for step-by-step regulation of the secondary voltage. The selenium rectifier unit is connected in a three-phase double-half period rectification bridge circuit. A smoothing choke is connected to the bridge output.

The rectified welding current of the VS-600 goes up to 600 amp, the rectified voltage is 20-40 volts, and there are 27 stages of regulation.

The VS-2M rectifier-regulator is designed for the conversion of a-c current into d-c current regulated by a voltage of 80 to 27 volts.

* Byulleten' Tekhniko-Ekonomicheskoy Informatsiy, No. 12, 1960, p. 18.

This current supplies the electrohygrometers VP-4, VP-4M, VE-2 and VE-2M, which are used in the laboratories of bread-collecting points and at plants of the procurement system. The over-all dimensions of the rectifier are 210 × 140 × 140 mm and the weight is 3 kg.

The VS-2M is supplied by a 127/220 volt, 50 cycle a-c line. The input power does not exceed 35 watts. The rectifier unit is made up of D7V germanium diodes in a bridge circuit. Regulation of the output rectified voltage is accomplished by type SG3S gas-discharge regulators. The apparatus is adjusted for a rectified voltage of 80 and 27 volts by means of an adjustable resistor.

Industrial testing of experimental models of the VSK-300, VS-600 and VS-2M rectifiers has shown good results. Serial production of this equipment is planned for 1962.

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